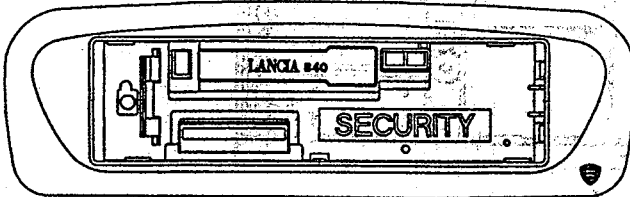
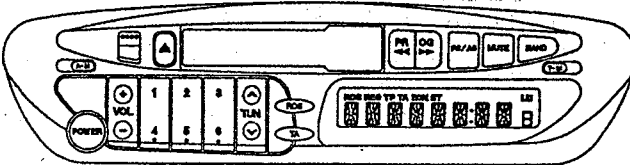


clarion Service Manual

Published by Service Dept.



Model PU-9984A



Model EU-1052A

LANCIA Automobile Genuine FM/MW/LW Radio Cassette Combination with RDS-EON

Model **PU-9984A**
(Genuine No.46421588)

Model **EU-1052A**
(Genuine No.46433335)

SPECIFICATIONS

RADIO SECTION

Circuit system :Superheterodyne
Tuning system :Electronic tuning
Receive range :MW 531 to 1,602kHz
:LW 153 to 279kHz
:FM 87.5 to 108.0MHz
Intermediate frequency :MW/LW 450kHz
:FM 10.7MHz

Quieting sensitivity :MW Less than 33dB
(at 20dB S/N)
:LW Less than 40dB
(at 20dB S/N)
:FM Less than 13dB
(at 30dB S/N)

Separation :FM More than 20dB

Auto tuning stop sensitivity :MW/LW DX 30 ± 10 dB
LO 50 ± 10 dB
:FM DX 20 ± 10 dB
LO 45 ± 10 dB

TAPE SECTION

Reproduction system :4track,2channel, stereo cassette
deck

Tape speed :4.76cm/sec.(1-7/8"/sec.)
Wow and flutter :Less than 0.25%(W.R.M.S.)
Separation :More than 35dB
Crosstalk :More than 40dB
S/N ratio :More than 45dB
FF/REW time :Less than 95sec.(C-60)

SYNTHESIS

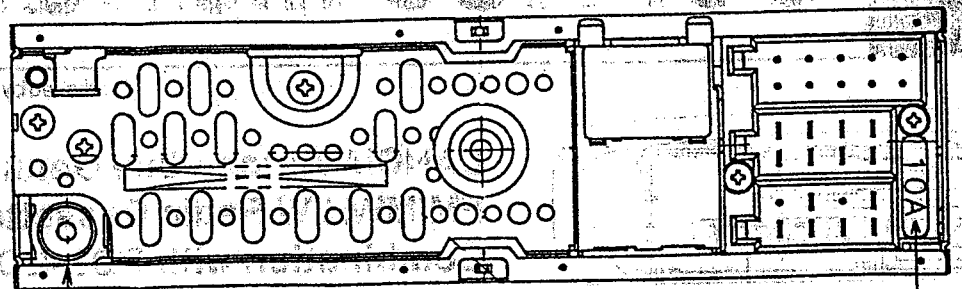
Load impedance :4 Ω
Power output :5Wx4(at 10% dist.)
Power supply voltage :DC 14.0V Negative ground
Current consumption :Less than 5mA(at BACK UP)
Dimensions :Width 178mm
:Height 50mm
:Depth 157mm
Weight :1.3kg

※ For improvement purposes, specifications and design are subject to change without prior notice.

COMPONENTS

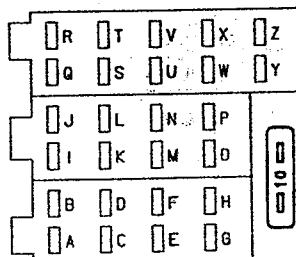
● PU-9984A-A		
Main unit		1
● EU-1052A-A		
Main unit		1
DCP case	335-5003-00	1
Hook plate	330-8216-0L	2

REAR VIEW and CONNECTORS



ANTENNA

FUSE 10A



A	REMOTE SIGNAL	I	REAR RIGHT SP-
B		J	REAR RIGHT SP+
C	BACK UP	K	FRONT RIGHT SP-
D	REMOTE GND	L	FRONT RIGHT SP+
E	ILLUMINATION	M	FRONT LEFT SP-
F		N	FRONT LEFT SP+
G	GROUND	O	REAR LEFT SP-
H	ACC	P	REAR LEFT SP+

ADJUSTMENT

*FM SECTION

Item	Procedure
S-METER	1.Connect the digital voltmeter to TP101. 2.Input the 98.1MHz/30dB(30%,400Hz)signal and adjust the level to $2.4V \pm 0.1V$ by VR101.
SD	1.Input the 98.1MHz/28dB(30%,400Hz)signal. 2.Connect the GND to TP103. 2.Adjust VR102 so that the voltage of TP102 is high.

EXPLANATION OF IC

μPD7006AGF-651-3B9

052-1303-01

Tuner controller for RDS

Outward From
80-pin plastic QFP

Terminal Description

Pin No.	Symbol	I/O	Function
1	ST IND	I	Pin for lighting "ST" LCD while the input level is "L" during FM station reception.
2	RDS IND	I	Pin for input of RDS station signal from the RDS decoder IC.
3	SK IND	I	Pin for input of SK (traffic information station) signal from the RDS decoder IC.
4	DK IND	I	Pin for input of DK (announcement) signal from the RDS decoder IC.
5	REMOCON IN	I	Pin for input from the 1-wire, voltage conversion type remote controller.
6	VSM	I	Pin used for signal (field strength) comparison during tracking of same programme.
7	FM IF	I	Pin for input of FM IF frequency counter signal.
8	AM IF	I	Pin for input of MW/LW IF frequency counter signal.
9	RDS START	I	Pin for input of start signal from the RDS decoder IC.
10	RDS DATA	I	Pin for input of RDS data from the RDS decoder IC synchronized with RDS CLK.
11	RDS CLK	I	Pin for input of clock from the RDS decoder IC.
12	RDS RES	O	Pin used as the reset flag of synchronizing software.
13	RDS MUTE	O	MW/LW/L output terminal which outputs "L" for 1 sec when FM power is switched ON.
14	VDD	-	Power pin.
15	AM OSC	I	Pin for input of MW/LW band VCO (receiving frequency +10.7MHz).
16	FM OSC	I	Pin for input of FM band VCO (receiving frequency +10.7MHz).
17	GND	-	Earth terminal.
18	EO	O	Pins for output of PLL error signals.
19	EO AM	O	
20	EO FM	O	
21	LW/MW FM	O	Pin for output of "H" during LW reception.
22	REM	O	Pin for system power control.
23	VOL CE	O	Pin for electronic volume control.
24	MUTE	O	Pin for system muting control (interlocked with electronic volume).
25	AM+B	O	Pin for MW/LW band power control.
26	FM+B	O	Pin for FM band power control.
27	LPF CONT	O	Pin for PLL low-pass filter control.
28	BEEP	O	Pin for output of pulse for generating beep sound.
29	B/U DET	I	Pin for detecting that the system back-up power is dropped.
30	VDD	-	Power pin.
31	CE	I	Pin for input of Chip Enable signal.
32	MOTOR	O	Pin for cassette deck power control.
33	GND	-	Earth pin.
34	X OUT	-	Pins for connection of X'tal oscillator.
35	X IN	-	
36	NC	-	Not in use.
37	ACC IN	I	Pin for detecting the accessory power input from the car.
38	VOL L	I	Pin for input of electronic volume signals (phase comparison method).
39	VOL R	I	
40	BAND/ILL	I	Pins for input of BAND key signal.
41~44	KO3~KO0	O	Pin for output of key scan signals.
45~52	KI7~KI0	I	Pin for input of key scan signals (pins 45 to 52 are not in use).
53	LCD KEY REQ	I	Pin for input of Key On signal from the LCD driver.
54	PHONE INT	I	Telephone signal port. MUTE is output while this Port is "H".

Pin No.	Symbol	I/O	Function
55	NC	-	Not in use.
56	SI	I	Serial data line to/from the LCD driver and electronic volume.
57	SO	O	
58	SCK	O	
59	REM OUT	O	STOP request signal for externally connected components.
60	REM IN	I	Operation signal from externally connected components.
61	GND	-	Earth pin.
62	LCD CS	O	Pin for output of LCD driver Chip Select signal.
63	NC	-	Not in use.
64	VDD	-	Power pin.
65	LCD OE	O	Pin for LCD driver control.
66	ILLUMI	O	Two cycles of "H" ↔ "L" are repeated when the BAND key is held for 2 sec. The initial status is "L". Because of the presence of the illumination line, "H" can be output even when Acc is OFF.
67	NC	-	Not in use.
68			
69	R/T	O	Pin for output for switching between the radio mode (L) and tape mode (H).
70	DOLBY ON/OFF	O	In Tape mode, alternates "H" and "L" every time the switch is pressed.
71	APC ON/OFF	O	In tape mode with APC ON, outputs "H" during FW/REW.
72	MTL ON/OFF	O	In tape mode, alternates "H" and "L" every time the switch is pressed.
73	FF/REW	I	In case the radio monitoring is used, radio broadcasting is monitored while this port is "L" with the cassette pack in.
74	PACK IN	I	L: Cassette pack present (tape mode). H: Cassette pack absent (radio mode).
75	FOR/REV	I	Cassette tape transport direction. (In tape mode, outputs MUTE when the port status changes.)
76	FM SD	I	Pin for station detection during tracking of same programme while auto tuning (Seek, AS, PS) is activated.
77	DX/LO	O	Pin used during Seek and AS (usually "L").
78	RDS SD	O	Pin used during Seek, AS and auto tracking in FM mode (usually "L").
79	IF REQ	O	Outputs "L" when IF count is required during Seek, AS and PS (usually "H").
80	IF MUTE	O	Outputs signal during auto tracking operation.

Key Matrix Table

KEY IN	KI 0 (52 pin)	KI 1 (51 pin)	KI 2 (50 pin)	KI 3 (49 pin)
KEY OUT				
KO 0 (44 pin)	D SW0	D SW1	D SW2	D SW3
KO 1 (43 pin)	BAND AM	RADIO MONITOR	E VOL FADER	T MODE
KO 2 (42 pin)	LOUD KEY	FF/REW		

□ : Diode SW

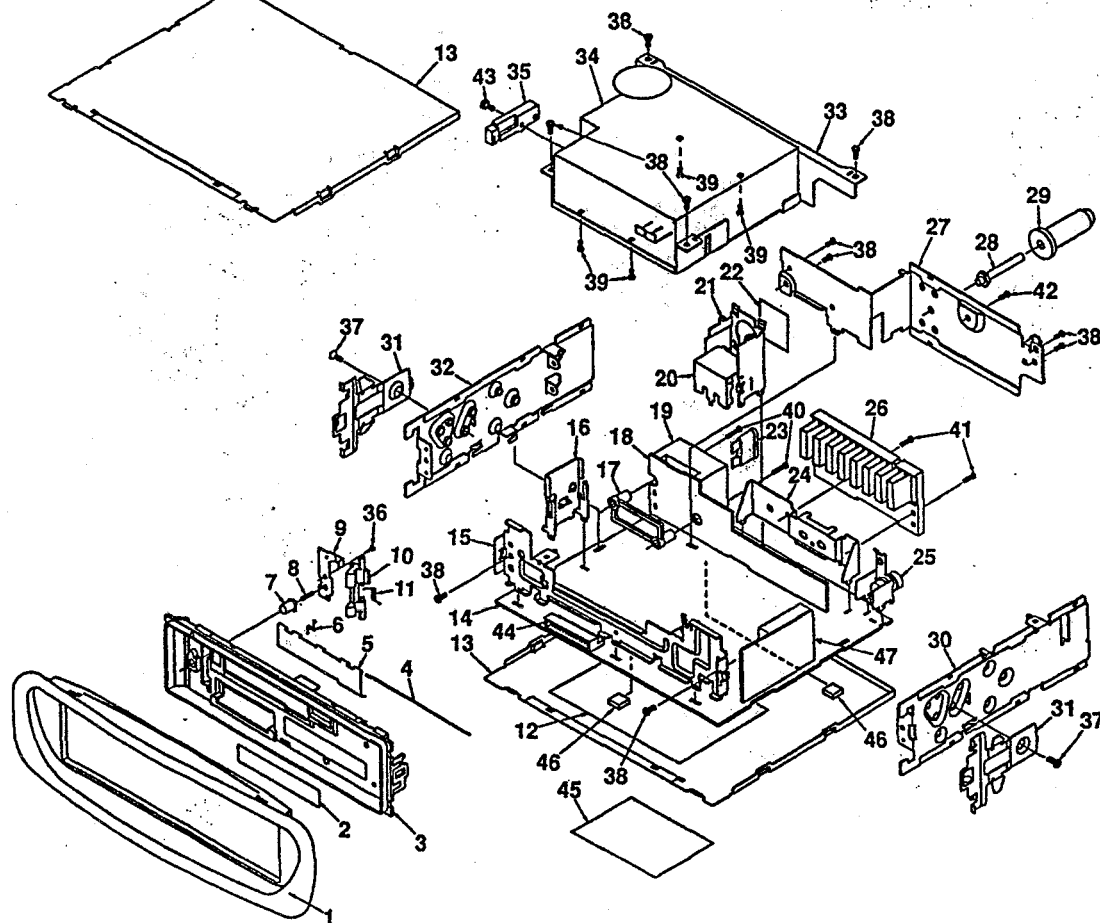
Diode SW

*In the table below, "0" means that diode SW is OFF (OPEN) and "1" means that diode SW is ON (SHORT).

Switch name	Function																									
D SW0 D SW1	Select the initial setting of AS (Auto Store). <table><tr><th>D SW0</th><th>D SW1</th><th>Function</th></tr><tr><td>0</td><td>0</td><td>Both FM 1 and</td></tr><tr><td>0</td><td>1</td><td>FM 2 bands</td></tr><tr><td>1</td><td>0</td><td rowspan="2">FM 2 band only</td></tr><tr><td>1</td><td>1</td></tr></table>	D SW0	D SW1	Function	0	0	Both FM 1 and	0	1	FM 2 bands	1	0	FM 2 band only	1	1											
D SW0	D SW1	Function																								
0	0	Both FM 1 and																								
0	1	FM 2 bands																								
1	0	FM 2 band only																								
1	1																									
D SW2 D SW3	Select the availabilities of the APC, Dolby and MTL function. <table><tr><th>D SW2</th><th>D SW3</th><th colspan="3">Function</th></tr><tr><td>0</td><td>0</td><td>APC: OFF.</td><td>DOLBY: OFF.</td><td>MTL: OFF.</td></tr><tr><td>0</td><td>1</td><td>APC: OFF.</td><td>DOLBY: OFF.</td><td>MTL: ON.</td></tr><tr><td>1</td><td>0</td><td>APC: OFF.</td><td>DOLBY: ON.</td><td>MTL: OFF.</td></tr><tr><td>1</td><td>1</td><td>APC: ON.</td><td>DOLBY: ON.</td><td>MTL: ON.</td></tr></table>	D SW2	D SW3	Function			0	0	APC: OFF.	DOLBY: OFF.	MTL: OFF.	0	1	APC: OFF.	DOLBY: OFF.	MTL: ON.	1	0	APC: OFF.	DOLBY: ON.	MTL: OFF.	1	1	APC: ON.	DOLBY: ON.	MTL: ON.
D SW2	D SW3	Function																								
0	0	APC: OFF.	DOLBY: OFF.	MTL: OFF.																						
0	1	APC: OFF.	DOLBY: OFF.	MTL: ON.																						
1	0	APC: OFF.	DOLBY: ON.	MTL: OFF.																						
1	1	APC: ON.	DOLBY: ON.	MTL: ON.																						
BAND AM	Select the availability of the AM band. 0 : AM band unavailable. 1 : AM band available.																									
RADIO MONITOR	Select the availability of the radio monitoring function. (reproducing radio during FF/REW) 0 : Radio monitoring unavailable. 1 : Radio monitoring available.																									
E VOL FADER	Select the availability of the fader function with the electric volume. 0 : Fader unavailable. 1 : Fader monitoring available.																									
T MODE	Select the availability of the tuning mode function (auto and manual). 0 : Tuning mode unavailable. 1 : Tuning mode available.																									
LOUD KEY	Select the availability of the loudness control function. 0 : Loudness unavailable. 1 : Loudness available.																									
FF/REW	Select the functions of FF and REW 0 : <input type="button" value="<<"/> <input type="button" value=">>"/> available. 1 : <input type="button" value="<<"/> <input type="button" value=">>"/> available.																									

EXPLODED VIEW - PARTS LIST

© PU-9984A

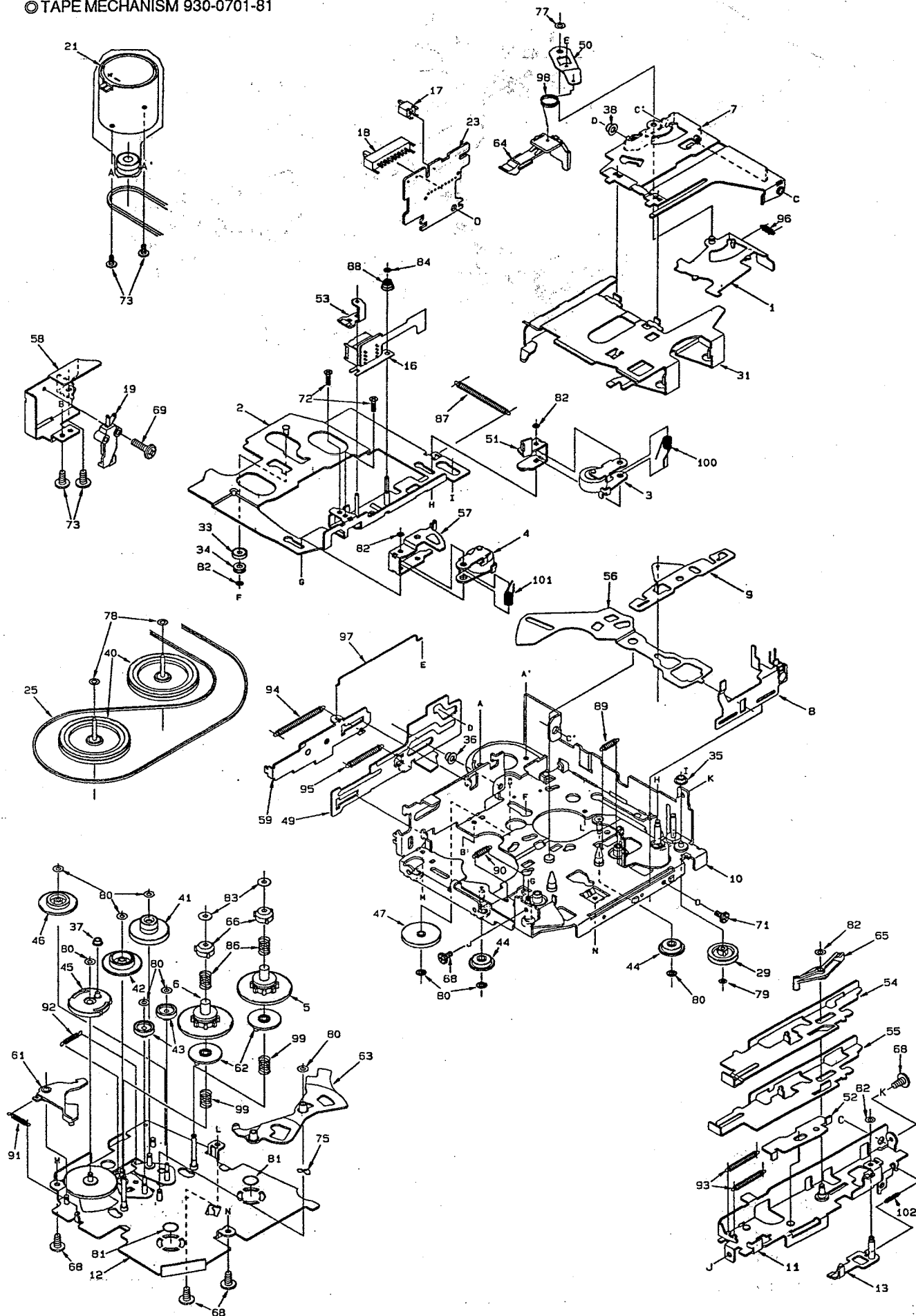


REF NO.	PART NO.	DESCRIPTION	Q'TY
1	370-5560-00	ESCUTCHEON	1
2	291-0074-00	STICKER	1
3	370-5561-00	ESCUTCHEON	1
4	341-1278-00	SHAFT	1
5	320-0521-13	DUSTPROOF-CVR	1
6	750-2530-03	SPRING(DUST-CVR)	1
7	382-3661-0L	BUTTON	1
8	750-3107-0L	SPRING	1
9	331-0417-0L	HOOK HOLDER	1
10	335-4705-0L	HOOK	1
11	750-3106-0L	SPRING	1
12	347-3996-0L	INSULATOR	1
13	303-0441-0L	UPPER-CVR	2
14	039-0181-00	MAIN PWB	1
15	309-0648-00	FRONT-PLATE	1
16	313-1577-0L	HEAT SINK	1
17	335-4708-0L	SPACER(ISO)	1
18	039-0556-00	ISO PWB	1
19	074-0930-11	OUTLET SOCKET(ISO26P)	1
20	331-0413-0L	SHIELD PLATE(CHOKE)	1
21	331-0412-0L	CONNECTOR-BRKT(CHOKE)	1
22	347-3977-0L	LABEL	1
23	060-0057-56	AUTO-FUSE(10A)	1
24	331-0411-0L	IC HOLDER	1

REF NO.	PART NO.	DESCRIPTION	Q'TY
25	092-0668-0L	ANT-RECEPT	1
26	313-1576-0L	HEAT SINK	1
27	307-0488-01	REAR-CVR	1
28	716-1736-00	REAR BOLT	1
29	345-7658-00	STOPPER	1
30	305-0235-02	SIDE-CVR	1
31	750-3183-00	SPRING	2
32	305-0234-02	SIDE-CVR	1
33	331-0410-0L	MECH-BRKT	1
34	930-0701-81	TAPE-MECHANISM	1
35	335-4709-0L	SPACER(EJ)	1
36	716-0778-00	WAVE SCREW	1
37	714-5008-41	MACHINE SCREW	2
38	731-3006-80	TAPTIGHT	10
39	714-3004-81	MACHINE SCREW	4
40	714-3025-11	MACHINE SCREW	2
41	731-3008-80	TAPTIGHT	2
42	702-3008-81	TAP SCREW	1
43	716-1619-00	SCREW	1
44	074-1058-00	OUTLET SOCKET	1
45	286-8461-00	SETPLATE	1
46	345-7495-0L	INSULATOR	2
47	80-2076-AH	TUNER KIT	1

EXPLODED VIEW

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PARTS LIST

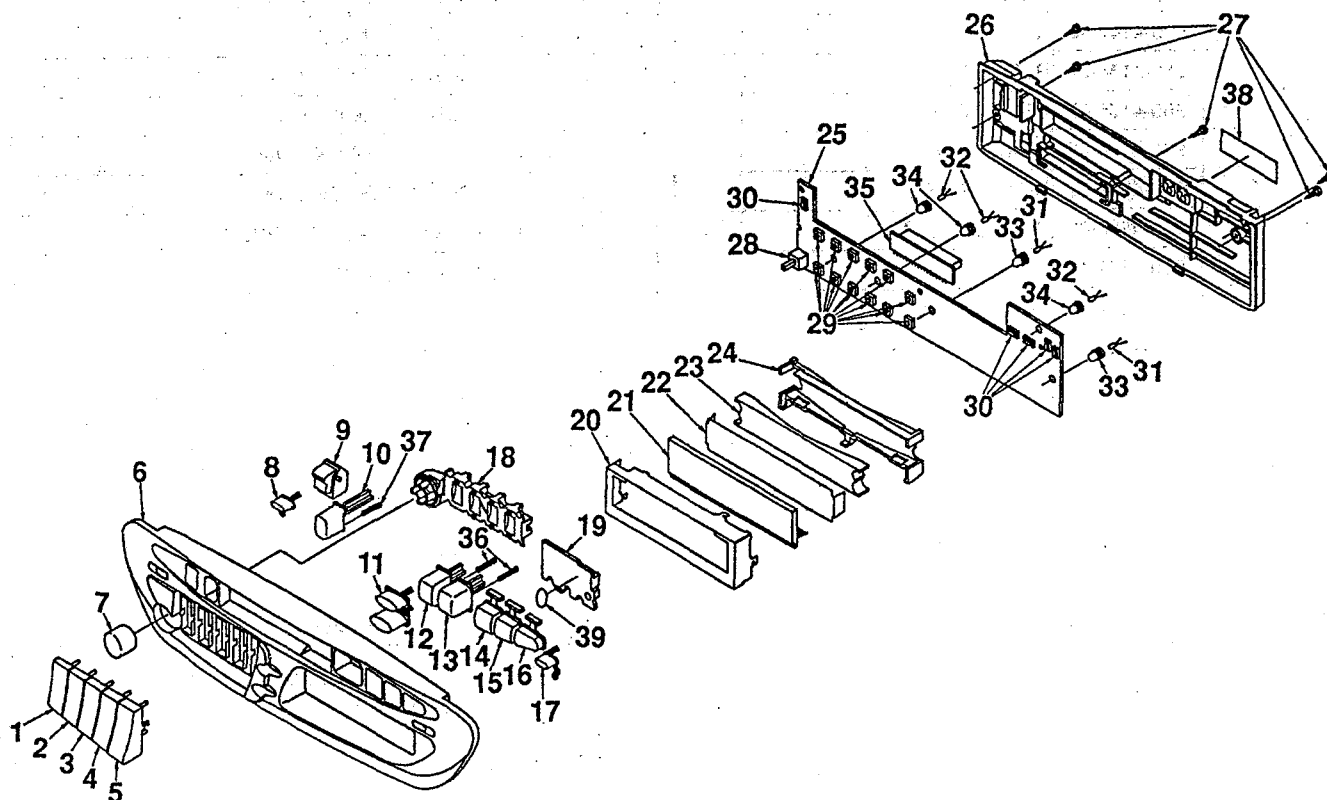
©930-0701-81

REF NO.	PART NO.	DESCRIPTION	Q'TY
1	960-4141-04	OFF ARM ASSY	1
2	960-4143-06	HEAD P-ASSY	1
3	960-4146-02	ROLLER F-ASSY	1
4	960-4147-02	ROLLER R-ASSY	1
5	960-4154-07	REEL F-ASSY	1
6	960-4155-07	REEL R-ASSY	1
7	960-4194-02	GUIDE ARM ASSY	1
8	960-4313-03	HD-SW-P-ASSY	1
9	960-4203-02	CHANGE-L-ASSY	1
10	960-4309-16	DECK-P-ASSY-C	1
11	960-4314-03	FRAME-ASSY	1
12	960-4315-12	BOTTOM-P-ASSY-C	1
13	960-4316-03	LOCK-A-ASSY	1
16	011-0313-14	HEAD	1
17	013-3906-00	SWITCH(MUTE)	1
18	013-3922-00	SWITCH(SLIDE)	1
19	013-3924-00	SWITCH(MAIN)	1
21	SMA-144-100	DC MOTOR ASSY	1
23	099-0319-01	PWB	1
25	602-0113-01	BELT	1
29	604-0042-01	PULLEY	1
31	606-0092-02	PACK GUIDE	1
33	610-0034-00	HEAD P-ROLLER	1
34	610-0324-00	HEAD-G-ROLLER A	1
35	610-0325-00	HEAD-G-ROLLER B	1
36	610-0326-00	EJECT ROLLER	1
37	610-0328-00	CH ROLLER	1
38	610-0337-00	GUIDE-A-ROLLER	1
40	611-0087-05	FLYWHEEL	2
41	613-0259-02	GEAR F	1
42	613-0260-02	GEAR R	1
43	613-0261-01	IDLER GEAR	2
44	613-0262-01	FF/REW GEAR	2
45	613-0264-02	CH GEAR	1
46	613-0258-03	GEAR B	1
47	613-0304-10	GEAR A	1
49	630-2417-02	EJECT PLATE	1
50	630-2419-02	SWING ARM	1
51	630-2422-05	RELEASE LINK	1
52	630-2424-04	SELECT LINK	1
53	630-2427-01	AZIMUTH LINK	1
54	630-2678-02	FF LEVER-DCP	1

REF NO.	PART NO.	DESCRIPTION	Q'TY
55	630-2679-02	REW LEVER-DCP	1
56	630-2432-02	CHANGE PLATE	1
57	630-2436-04	REW LINK	1
58	630-2440-01	SWITCH BASE	1
59	630-2445-01	EJECT LEVER-CR	1
61	631-0653-02	LOCK LINK	1
62	631-0656-03	CHECK PLATE	2
63	631-0657-02	CHECK LINK	1
64	631-0658-01	PACK STOPPER	1
65	631-0659-03	MUTE LINK	1
66	631-1967-00	SLIDE BUSH	2
68	714-2003-81	MACHINE SCREW(2x3)	5
69	714-2008-81	MACHINE SCREW(2x8)	1
71	716-0891-01	PWB SCREW	1
72	716-1432-00	SCREW(AZIMUTH)	2
73	716-0484-02	SCREW	4
75	745-0586-03	SPRING WASHER	1
77	746-0622-01	WASHER	1
78	746-0624-00	WASHER	2
79	746-0724-00	WASHER	1
80	746-0761-00	WASHER	10
81	746-0767-00	WASHER	2
82	746-0768-00	WASHER	5
83	746-0813-00	POLY-WASHER	2
84	746-0832-00	WASHER(HEAD)	1
86	750-2564-01	SLIDE SPRING	2
87	750-2847-01	HEAD P-SPRING	1
88	750-2848-00	AZIMUTH SPRING	1
89	750-2849-02	FF P-SPRING	1
90	750-2850-02	REW P-SPRING	1
91	750-2852-01	LOCK-L-SPRING	1
92	750-2853-01	IDLER-P-SPRING	1
93	750-2854-01	FF/REW SPRING	2
94	750-2857-02	EJECT-L-SPRING	1
95	750-2858-01	EJECT-P-SPRING	1
96	750-2859-00	OFF ARM SPRING	1
97	750-2860-01	ROD SPRING	1
98	750-2861-01	SLOT-IN SPRING	1
99	750-2919-02	CHECK SPRING-R	2
100	750-2920-01	PINCH SPRING-F	1
101	750-2921-01	PINCH SPRING-R	1
102	750-3010-01	LOCK-A-SPRING	1

EXPLODED VIEW · PARTS LIST

●EU-1052A



REF NO.	PART NO.	DESCRIPTION	Q'TY
1	382-4008-00	BUTTON(VOL)	1
2	382-4009-00	BUTTON(1/4)	1
3	382-4010-00	BUTTON(2/5)	1
4	382-4011-00	BUTTON(3/6)	1
5	382-4012-00	BUTTON(TUN)	1
6	370-5559-00	ESCUTCHEON(FRONT)	1
7	382-4002-00	BUTTON(POWER)	1
8	382-4006-00	BUTTON(A-M)	1
9	382-4014-00	BUTTON(RELEASE)	1
10	382-3999-00	BUTTON(EJECT)	1
11	382-4013-00	BUTTON(RDS/TA)	1
12	382-4000-00	BUTTON(REW)	1
13	382-4001-00	BUTTON(FF)	1
14	382-4003-00	BUTTON(PS/AS)	1
15	382-4004-00	BUTTON(MUTE)	1
16	382-4005-00	BUTTON(BAND)	1
17	382-4007-00	BUTTON(T-W)	1
18	335-4982-00	ILLUMI PLATE	1
19	335-4983-00	ILLUMI PLATE	1
20	331-0416-0L	LCD HOLDER	1

REF NO.	PART NO.	DESCRIPTION	Q'TY
21	379-1002-41	INDICATOR	1
22	347-3953-0L	FILM	1
23	335-4707-02	ILLUMI PLATE	1
24	335-4706-0L	LCD HOLDER	1
25	039-0555-00	SWITCH PWB	1
26	335-4981-00	REAR COVER	1
27	716-0872-12	PAD SCREW	5
28	013-3849-00	SWITCH(POWER)	1
29	013-3978-00	SWITCH	12
30	013-3969-00	SWITCH	5
31	017-9001-00	PILOT LAMP(8V)	2
32	017-9000-00	PILOT LAMP(14V)	3
33	345-3814-74	LAMP CAP	2
34	345-7148-10	LAMP CAP	3
35	076-0481-00	PLUG	1
36	750-3192-00	SPRING	2
37	750-3074-00	SPRING	1
38	286-8458-00	SET PLATE	1
39	347-5231-00	LABEL	1

PU-9984A

■ PARTS LIST

◎ MAIN P.W.B

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 101	178-2232-05	0.022uF	C 448	183-4753-51	35V4.7uF	L 501	010-2230-30	COIL
C 106	178-4722-05	4700pF	C 449	183-4753-51	35V4.7uF	L 502	010-2046-36	220uH
C 107	178-1022-05	1000pF	C 450	183-4753-51	35V4.7uF	L 503	010-2230-19	COIL
C 108	183-4753-51	35V4.7uF	C 451	183-4753-51	35V4.7uF	Q 101	125-2004-03	RN1403
C 109	183-4753-51	35V4.7uF	C 452	178-6812-05	680pF	Q 102	125-2004-03	RN1403
C 110	178-1532-05	0.015uF	C 453	178-6812-05	680pF	Q 103	103-1306-00	2SD1306
C 111	178-1532-05	0.015uF	C 454	178-6812-05	680pF	Q 104	102-2712-51	2SC2712GL
C 112	183-2253-61	50V2.2uF	C 455	178-6812-05	680pF	Q 105	102-2712-51	2SC2712GL
C 113	043-1600-33	0.033uF	C 460	183-1063-31	16V10uF	Q 106	102-3624-00	2SC3624
C 114	183-1053-62	50V1uF	C 461	172-1041-11	0.1uF	Q 107	102-3624-00	2SC3624
C 115	172-3931-11	0.039uF	C 462	172-1041-11	0.1uF	Q 108	125-2004-03	RN1403
C 116	178-5622-05	5600pF	C 463	172-1041-11	0.1uF	Q 109	125-2004-03	RN1403
C 202	043-1601-10	0.1uF	C 464	172-1041-11	0.1uF	Q 403	103-1306-00	2SD1306
C 203	043-1601-10	0.1uF	C 465	172-1041-11	0.1uF	Q 404	103-1306-00	2SD1306
C 204	183-1063-31	16V10uF	C 466	172-1041-11	0.1uF	Q 405	103-1306-00	2SD1306
C 206	176-1011-00	100pF	C 467	172-1041-11	0.1uF	Q 406	103-1306-00	2SD1306
C 207	176-1011-00	100pF	C 468	172-1041-11	0.1uF	Q 407	125-0002-03	RN2403
C 208	176-1011-00	100pF	C 469	183-1063-31	16V10uF	Q 501	100-1162-00	2SA1162
C 209	176-2201-00	22pF	C 470	172-1041-11	0.1uF	Q 502	125-2004-02	RN1402
C 210	176-2201-00	22pF	C 471	042-0447-00	16V2200uF	Q 503	103-0882-00	2SD882
C 211	178-1022-05	1000pF	C 472	042-0447-00	16V2200uF	Q 504	101-0772-0L	2SB772
C 212	178-1022-05	1000pF	C 473	183-1073-21	10V100uF	Q 505	102-2712-00	2SC2712
C 301	178-3312-05	330pF	C 474	183-4753-51	35V4.7uF	Q 506	101-0624-0L	2SB624
C 302	183-2253-61	50V2.2uF	C 501	178-1022-05	1000pF	Q 507	102-2712-00	2SC2712
C 303	183-4763-11	6.3V47uF	C 502	178-1032-05	0.01uF	Q 508	103-0882-00	2SD882
C 304	178-5612-05	560pF	C 503	184-2273-22	10V220uF	Q 509	101-0624-0L	2SB624
C 305	176-8201-00	82pF	C 504	184-2273-22	10V220uF	Q 510	100-1162-50	2SA1162YG
C 306	176-4701-00	47pF	C 505	183-4753-51	35V4.7uF	Q 511	125-2004-03	RN1403
C 307	043-1601-10	0.1uF	C 506	042-0199-00	10V22uF	Q 512	100-1162-00	2SA1162
C 401	173-6812-10	680pF	C 507	172-2241-11	0.22uF	Q 513	125-2004-02	RN1402
C 402	183-1053-61	50V1uF	C 508	182-1073-32	16V100uF	Q 514	101-1068-0L	2SB1068
C 403	183-1073-12	6.3V100uF	C 509	172-1041-11	0.1uF	Q 515	103-1616-1L	2SD1616
C 404	178-2732-05	0.027uF	C 510	183-4763-31	16V47uF	R 101	117-1031-10	1/10W 10kohm
C 405	173-6812-10	680pF	C 511	183-3363-21	10V33uF	R 102	117-1231-10	1/10W 12kohm
C 406	183-1053-61	50V1uF	C 512	042-0200-00	10V47uF	R 103	117-6821-10	1/10W 6.8kohm
C 407	183-1073-12	6.3V100uF	CCT201	050-0077-02	10kohmX4	R 104	117-1041-10	1/10W 100kohm
C 408	178-2732-05	0.027uF	CCT202	050-0077-02	10kohmX4	R 105	117-1021-10	1/10W 1kohm
C 409	183-1063-52	35V10uF	D 101	001-0366-00	LTZ-MR15	R 109	117-2231-10	1/10W 22kohm
C 411	183-1053-61	50V1uF	D 102	001-0330-00	1SS119	R 110	117-3321-10	1/10W 3.3kohm
C 413	183-1053-62	50V1uF	D 203	001-0330-00	1SS119	R 111	117-3321-10	1/10W 3.3kohm
C 415	183-4753-51	35V4.7uF	D 204	001-0330-00	1SS119	R 112	117-3321-10	1/10W 3.3kohm
C 416	183-4753-51	35V4.7uF	D 205	001-0361-10	1SS198	R 113	117-3321-10	1/10W 3.3kohm
C 417	183-4753-51	35V4.7uF	D 501	001-0330-00	1SS119	R 114	117-5621-10	1/10W 5.6kohm
C 418	183-4753-51	35V4.7uF	D 502	001-0330-00	1SS119	R 115	117-2221-10	1/10W 2.2kohm
C 419	183-1073-21	10V100uF	D 503	001-0361-10	1SS198	R 116	117-1021-10	1/10W 1kohm
C 420	184-2273-12	6.3V220uF	D 504	001-0377-48	MA4091H	R 117	117-1021-10	1/10W 1kohm
C 422	183-1063-31	16V10uF	D 505	001-0330-00	1SS119	R 118	117-6821-10	1/10W 6.8kohm
C 424	183-4753-51	35V4.7uF	D 506	001-0330-00	1SS119	R 119	117-1021-10	1/10W 1kohm
C 425	178-3922-05	3900pF	D 507	001-0377-45	MA4082H	R 206	117-1031-10	1/10W 10kohm
C 426	043-1600-33	0.033uF	D 508	001-0466-00	S5688B	R 207	117-1031-10	1/10W 10kohm
C 427	183-1063-31	16V10uF	D 509	001-0466-00	S5688B	R 208	117-3321-10	1/10W 3.3kohm
C 428	178-6822-05	6800pF	D 510	001-0188-01	1S1885A	R 209	117-1031-10	1/10W 10kohm
C 429	043-1601-10	0.1uF	D 511	001-0466-00	S5688B	R 210	117-1041-10	1/10W 100kohm
C 430	043-1601-10	0.1uF	D 512	001-0330-00	1SS119	R 211	117-1011-10	1/10W 100kohm
C 431	183-1063-31	16V10uF	D 513	001-0377-47	MA4091M	R 301	117-2221-10	1/10W 2.2kohm
C 432	183-1063-31	16V10uF	D 514	001-0330-00	1SS119	R 401	117-3331-10	1/10W 33kohm
C 433	183-4753-51	35V4.7uF	D 515	001-0423-31	MA4180	R 402	117-8201-10	1/10W 82ohm
C 434	183-4753-51	35V4.7uF	IC 201	052-1303-01	uPD17006AGF-651-3B9	R 403	117-4721-10	1/10W 4.7kohm
C 435	183-1063-31	16V10uF	IC 202	051-1375-35		R 404	117-1241-10	1/10W 120kohm
C 436	183-1063-31	16V10uF	IC 301	051-1819-00	SAA6579T	R 405	117-3331-10	1/10W 33kohm
C 437	183-4753-51	35V4.7uF	IC 401	051-0301-01	uPC1228HA	R 406	117-8201-10	1/10W 82ohm
C 438	178-3922-05	3900pF	IC 402	051-1038-00	CXA1102P	R 407	117-4721-10	1/10W 4.7kohm
C 439	043-1600-33	0.033uF	IC 403	051-5000-00	LC7538N	R 408	117-1241-10	1/10W 120kohm
C 440	183-1063-31	16V10uF	IC 404	051-0422-51	NJM4558D	R 409	111-2201-91	1/4WS 22ohm
C 441	178-6822-05	6800pF	IC 405	051-0287-51	NJM2058D	R 413	117-6821-10	1/10W 6.8kohm
C 442	043-1601-10	0.1uF	IC 406	051-2002-00	HA13151	R 416	117-6821-10	1/10W 6.8kohm
C 443	043-1601-10	0.1uF	IC 501	051-0869-00	MB3771P	R 419	117-4331-10	1/10W 43kohm
C 444	183-1063-31	16V10uF	IC 502	051-3201-00	AN77L06	R 420	117-2231-10	1/10W 22kohm
C 445	183-1063-31	16V10uF	L 101	010-2230-00	COIL	R 421	117-2231-10	1/10W 22kohm
C 446	183-4753-51	35V4.7uF	L 102	010-2003-04		R 422	111-2221-91	1/4WS 2.2kohm
C 447	183-4753-51	35V4.7uF				R 423	111-2221-91	1/4WS 2.2kohm

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R 424	117-2221-10	1/4WS 2.2kohm	R 453	117-1031-10	1/10W 10kohm	R 516	111-1021-91	1/4WS 1kohm
R 425	117-1041-10	1/10W 100kohm	R 454	117-1031-10	1/10W 10kohm	R 517	111-2211-91	1/4WS 220ohm
R 426	117-1041-10	1/10W 100kohm	R 455	117-2291-10	1/10W 2.2ohm	R 518	111-1031-91	1/4WS 10kohm
R 427	117-1041-10	1/10W 100kohm	R 456	117-2291-10	1/10W 2.2ohm	R 519	111-3311-81	1/2W 330ohm
R 428	117-1041-10	1/10W 100kohm	R 457	117-2291-10	1/10W 2.2ohm	R 520	117-6821-10	1/10W 6.8kohm
R 429	117-1041-10	1/10W 100kohm	R 458	117-2291-10	1/10W 2.2ohm	R 521	117-1031-10	1/10W 10kohm
R 430	117-1041-10	1/10W 100kohm	R 459	117-2291-10	1/10W 2.2ohm	R 522	117-1031-10	1/10W 10kohm
R 431	117-1041-10	1/10W 100kohm	R 460	117-2291-10	1/10W 2.2ohm	R 523	111-2721-91	1/4WS 2.7kohm
R 432	117-1041-10	1/10W 100kohm	R 461	117-2291-10	1/10W 2.2ohm	R 524	117-2231-10	1/10W 22kohm
R 433	117-2741-10	1/10W 270kohm	R 462	117-2291-10	1/10W 2.2ohm	R 525	117-4731-10	1/10W 47kohm
R 434	117-2741-10	1/10W 270kohm	R 463	117-3321-10	1/10W 3.3kohm	R 526	111-5611-91	1/4WS 560ohm
R 435	117-2741-10	1/10W 270kohm	R 464	117-3921-10	1/10W 3.9kohm	R 528	117-1031-10	1/10W 10kohm
R 436	117-2741-10	1/10W 270kohm	R 465	117-1031-10	1/10W 10kohm	R 529	117-1031-10	1/10W 10kohm
R 437	117-1531-10	1/10W 15kohm	R 501	117-1051-10	1/10W 1Mohm	R 530	111-4721-91	1/4WS 4.7kohm
R 438	117-1531-10	1/10W 15kohm	R 502	117-1041-10	1/10W 100kohm	R 531	111-3321-91	1/4WS 3.3kohm
R 439	117-1531-10	1/10W 15kohm	R 503	117-1541-10	1/10W 150kohm	R 532	117-1031-10	1/10W 10kohm
R 440	117-1531-10	1/10W 15kohm	R 504	117-1831-10	1/10W 18kohm	R 533	117-1031-10	1/10W 10kohm
R 441	117-3311-10	1/10W 330ohm	R 505	117-1031-10	1/10W 10kohm	R 534	111-1021-91	1/4WS 1kohm
R 442	117-3311-10	1/10W 330ohm	R 506	117-6821-10	1/10W 6.8kohm	R 535	111-3311-91	1/4WS 330ohm
R 443	117-3311-10	1/10W 330ohm	R 507	117-1541-10	1/10W 150kohm	R 538	117-1031-10	1/10W 10kohm
R 444	117-3311-10	1/10W 330ohm	R 508	117-1241-10	1/10W 120kohm	R 539	117-1031-10	1/10W 10kohm
R 445	117-1021-10	1/10W 1kohm	R 509	117-3931-10	1/10W 39kohm	R 905	117-6821-10	1/10W 6.8kohm
R 446	117-1021-10	1/10W 1kohm	R 510	117-5131-10	1/10W 51kohm	R 907	117-6821-10	1/10W 6.8kohm
R 447	117-1531-10	1/10W 15kohm	R 511	117-8221-10	1/10W 8.2kohm	SUP101	060-0122-10	
R 448	117-1531-10	1/10W 15kohm	R 512	111-2291-81	1/2W 2.2ohm	T 501	009-0666-0L	
R 449	117-1531-10	1/10W 15kohm	R 512	111-6811-81	1/2W 680ohm	VR 101	012-4431-13	470kohm B
R 450	117-1531-10	1/10W 15kohm	R 513	111-4711-91	1/4WS 470ohm	VR 102	012-4431-06	10kohm B
R 451	117-1031-10	1/10W 10kohm	R 514	111-1231-91	1/4WS 12kohm	X 201	061-1064-00	
R 452	117-1031-10	1/10W 10kohm	R 515	117-3321-10	1/10W 3.3kohm	X 301	061-3013-00	4.33MHz

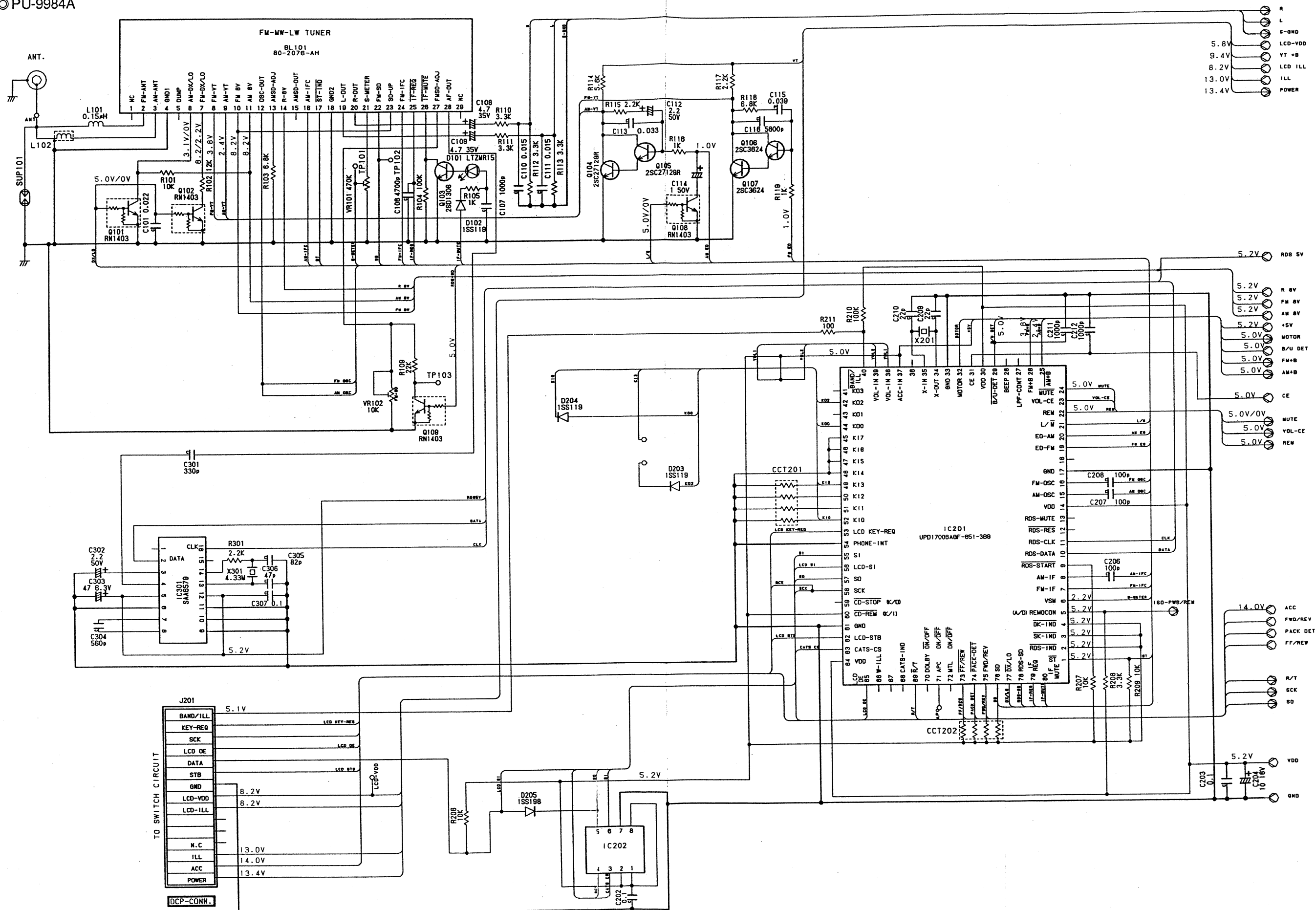
◎ISOP.W.B

REF No.	PART No.	DESCRIPTION
C 9002	172-1041-11	0.1uF
D 9002	001-0330-00	1SS119
R 9002	111-3311-91	1/4WS 330ohm

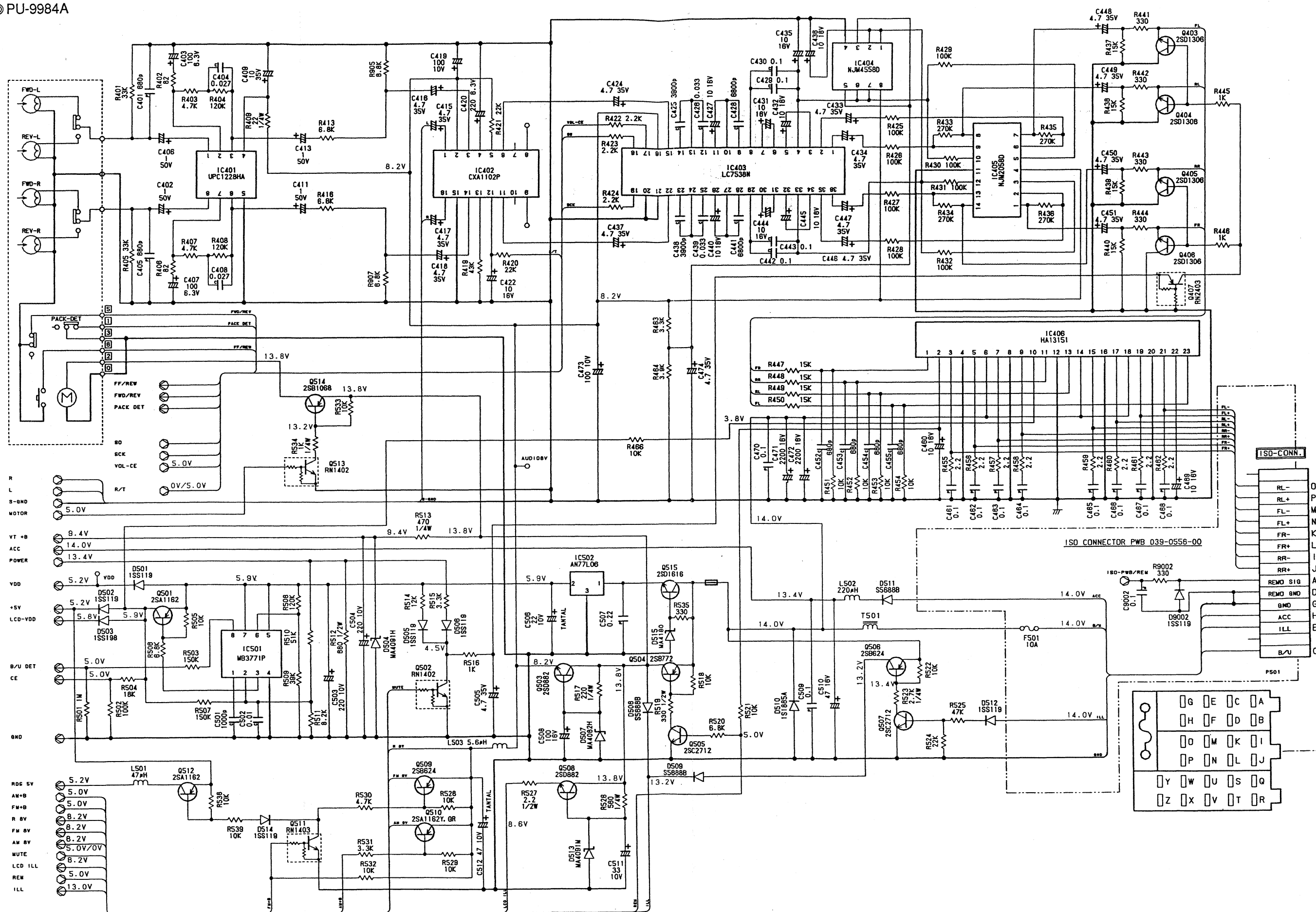
◎SWITCH P.W.B(EU-1052A)

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 1	178-1042-78	0.1uF	S 2	013-3978-00		S 13	013-3978-00	
C 2	178-1042-78	0.1uF	S 3	013-3969-00		S 14	013-3978-00	
D 6	001-0525-00	IMN10	S 4	013-3978-00		S 15	013-3978-00	
D 7	001-0525-00	IMN10	S 5	013-3978-00		S 16	013-3978-00	
IC 1	051-6001-01	uPD16431AGC-7ET	S 6	013-3978-00		S 17	013-3969-00	
R 1	117-1031-10	1/10W 10kohm	S 7	013-3978-00		S 18	013-3969-00	
R 2	117-1041-10	1/10W 100kohm	S 10	013-3969-00		S 19	013-3969-00	
R 3	117-1031-10	1/10W 10kohm	S 11	013-3978-00		S 20	013-3849-00	
S 1	013-3978-00		S 12	013-3978-00				

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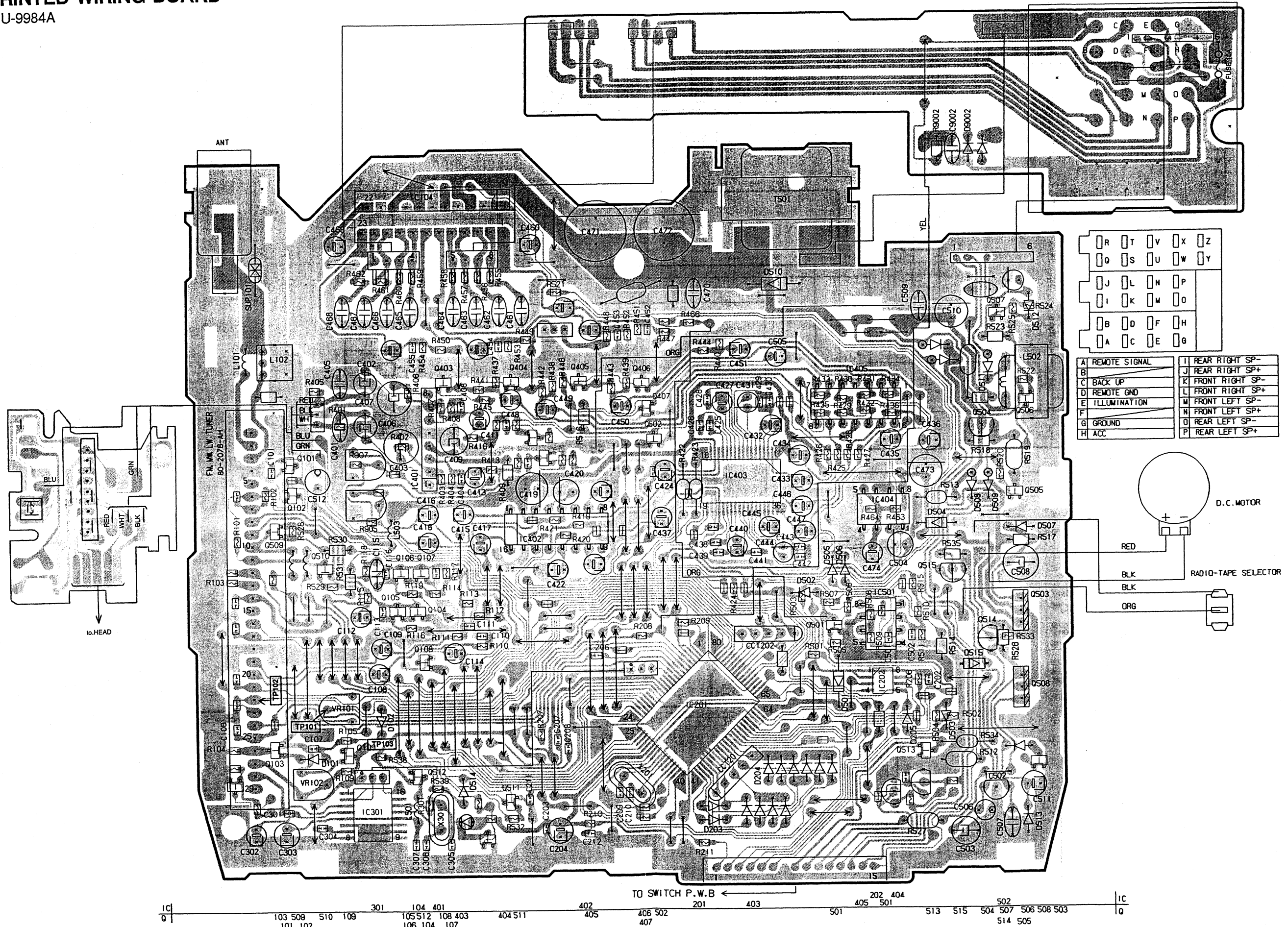


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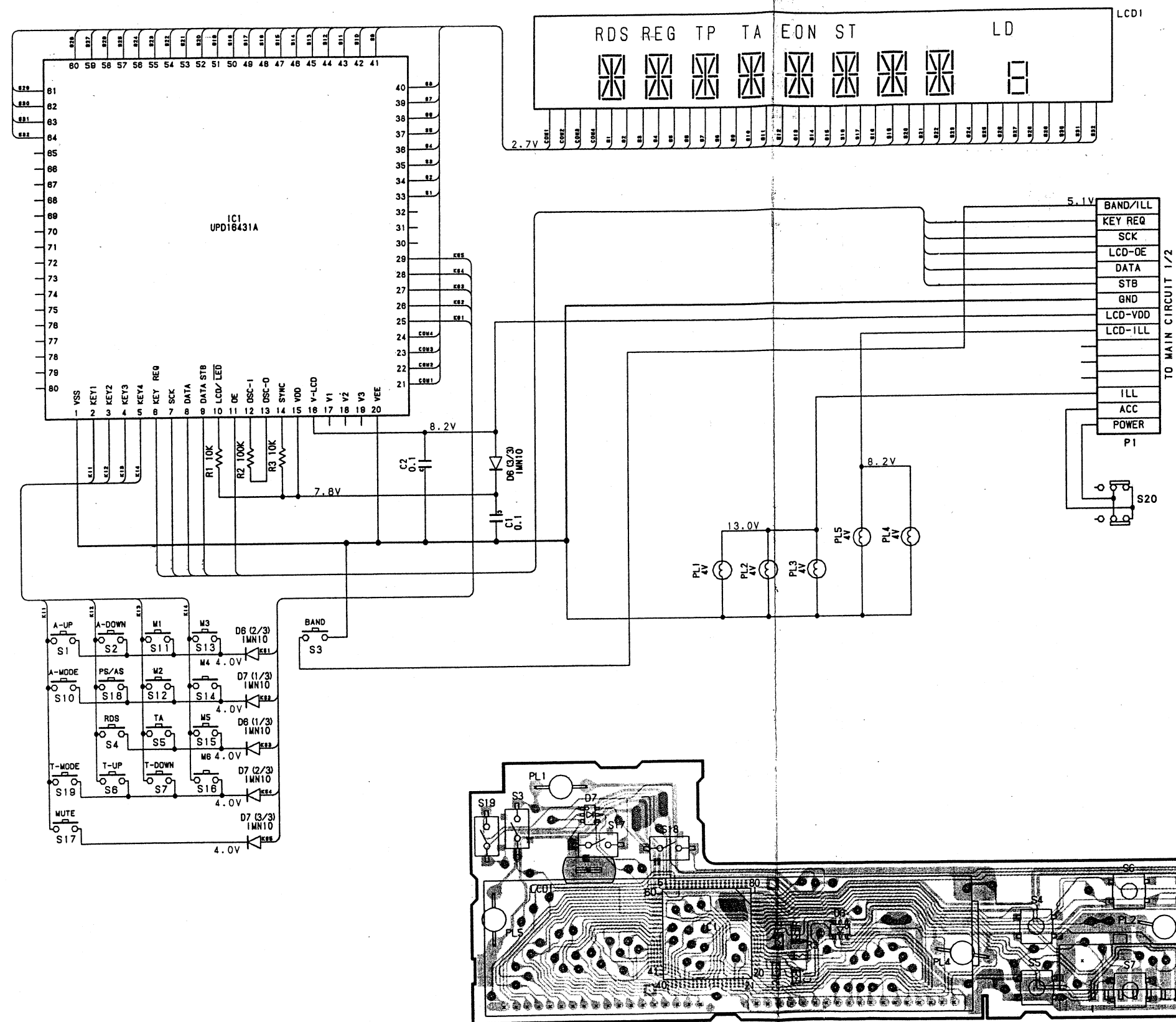
PRINTED WIRING BOARD

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■ CIRCUIT DIAGRAM · PRINTED WIRING BOARD

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■ CAUTIONS

During repair or inspection, observe the followings.

1. Use specified parts.

The system uses parts with special safety characteristics against flame and voltage. Use only parts with equivalent characteristics when replacing them.

2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding, gaps to P.W.B. etc. is involved. The wiring connection and routing to the P.W.B. are specially devised using clamps to keep away from heated and high-voltage parts. So, make sure to replace them back in their original positions after repair or inspection.

3. Check for safety after repair.

Check that the screws, parts, and wires are put back securely in their original position after repair. And make sure for safety reasons there is no possibility of secondary problems around the repaired spots.

4. Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, condensers, diodes, transistors, etc.). The negative pole of tantalum condensers is highly susceptible to heat, so use special care when replacing them, and check operation afterward.

5. Cautions in handling flexible P.W.B.

Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than 3 times) to the same patterns. Also take care not to apply the tip with force.